

ABSTRACT

Disclosed herein is a three-dimensional cellular light structure formed of continuous wire groups. In the cellular light structure, six orientational-wire groups are intercrossed each other at 60 degrees or 120 degrees of angles in a three-dimensional space to thereby construct the structure similar to the ideal Octet or Kagome truss and having a good mechanical property such as strength, rigidity or the like. A method of mass-producing the structure in a cost-effective manner is also disclosed. The three-dimensional cellular light structure has a similar form to the ideal Octet or Kagome truss. When required, the intersection points of the wires are bonded by means of welding, brazing, soldering, or a liquid- or spray-form adhesive to provide a structural material having a light weight and a good mechanical strength and rigidity. It can be made into a fiber-reinforced type composite material by filling part of or entire internal empty space of the structure.